



April 24, 2017

Michelle Kaysen
USEPA Region 5, Mail Code LU-9J
77 West Jackson Boulevard
Chicago, Illinois 60604

RE: First Quarter 2017 Progress Report, Hartford Petroleum Release Site, Hartford, Illinois

Dear Ms. Kaysen,

212 Environmental Consulting, LLC (212 Environmental) is submitting this quarterly report summarizing the progress and status of activities performed at the Hartford Petroleum Release Site (Hartford Site) on behalf of Apex Oil Company, Inc. (Apex) for the time period from January 1, 2017 to March 31, 2017.

1. The following deliverables were submitted by Apex during the first quarter 2017:
 - The outline for the *Vapor Phase Component of the Conceptual Site Model* was submitted to the United States Environmental Protection Agency (USEPA) and Illinois Environmental Protection Agency (Illinois EPA) on January 10, 2017 via email.
 - The *Fourth Quarter 2016 Sentinel Well Monitoring Summary Report* was submitted to the USEPA and the Illinois EPA on January 20, 2017 via standard mail and electronic file sharing.
 - The *Fourth Quarter 2017 Progress Report* was submitted to the USEPA and the Illinois EPA on February 6, 2017 via email.
 - An updated compliance calendar was sent to the USEPA and the Illinois EPA on February 6, 2017 via email and electronic file sharing.
 - The *Design Specifications and Bid Packages for the Installation and Connection of Nine Soil Vapor Extraction Wells* was submitted to the USEPA and Illinois EPA on March 4, 2017 via email.
 - The *Needs Assessment for 107 West Cherry Street* was submitted to the USEPA and the Illinois EPA on March 9, 2017 via email.
 - Weekly Field Activity Reports were submitted to the USEPA and Illinois EPA during the first quarter 2017 via email.
2. The following requests and notifications pertaining to activities at the Hartford Site were submitted by Apex during the first quarter 2017:



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- The USEPA and Illinois EPA were provided a summary of fluid levels and LNAPL thicknesses within select monitoring locations near North Olive Avenue and East Date Street on January 13, 2017.
 - The USEPA and Illinois EPA were provided a summary of the expanded first quarter 2017 in-home effectiveness monitoring event on February 23, 2017.
 - The USEPA and Illinois EPA were provided analytical results from indoor air and sub-slab vapor samples collected within 107 West Cherry Street on March 15, 2017.
 - The USEPA and Illinois EPA were provided a summary of the low-flow injection pilot test conducted at 105 West Cherry Street on March 25, 2017.
 - The USEPA and Illinois EPA were provided weekly summaries of in-home effectiveness screening results during the first quarter 2017.
3. Apex participated in the following meetings and teleconferences during the first quarter 2017:
- Teleconference with the USEPA, Illinois EPA, and TetraTech (USEPA technical review contractor) to discuss routine in-home screening results and the vapor phase component of the Conceptual Site Model was conducted on January 10, 2017.
 - Monthly teleconference with the USEPA, Illinois EPA, and TetraTech to discuss in-home effectiveness monitoring results was conducted on February 28, 2017.
 - Meeting with the USEPA and Illinois EPA to discuss correspondence and meetings with individual residents regarding the routine screening and laboratory analytical results for samples collected within their homes was conducted in Hartford on March 7, 2017.
 - Meeting with the Village of Hartford, USEPA, and Illinois EPA to discuss the results of the quarterly in-home effectiveness monitoring and meetings with individual residents was conducted in Hartford on March 7, 2017.
 - Teleconference with the USEPA, Illinois EPA, and TetraTech to discuss the proposed low-flow injection pilot test and the installation and connection of nine additional SVE wells was conducted on March 8, 2017.
 - Meetings with individual residents in Hartford to discuss the routine screening and laboratory analytical results for samples collected within their homes were conducted in Hartford on March 8, 2017.
 - Teleconference with the USEPA, Illinois EPA, and TetraTech to discuss the results of the low-flow injection pilot test conducted at 105 West Cherry Street and redesign of the wellhead configuration of the new SVE wells was conducted on March 14, 2017.
 - Meeting with the Village of Hartford, USEPA, and Illinois EPA to review the scope of work for the connection of nine additional SVE wells and abandonment of one additional SVE well was conducted in Hartford on March 16, 2017.



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4. Apex completed the following in-home effectiveness monitoring activities:
 - Weekly in-home effectiveness monitoring was performed within nine structures at the Hartford Site during the first quarter 2017.
 - Quarterly in-home effectiveness monitoring was performed within 54 structures at the Hartford Site between February 14 and February 27, 2017.
 - Additional in-home effectiveness monitoring within 101 East Birch Street, 105 West Cherry Street, 106 West Birch Street, 107 West Cherry Street, 117 East Date Street, 119 East Date Street, and 309 North Olive Avenue was conducted during the first quarter 2017.
 - Indoor air and sub-slab soil vapor samples were collected from 101 East Birch Street, 105 West Cherry Street, 106 West Birch Street, 107 West Cherry Street, 309 North Olive Avenue, and 610 North Old St. Louis Road between February 14 and March 11, 2017.
 - A ventilation system was installed and operated at 107 West Cherry Street beginning on March 9, 2017.
 - A low-flow air injection pilot test was installed and operated at 105 West Cherry Street beginning on March 15, 2017.
5. Apex completed the following dissolved phase investigation activities:
 - Quarterly manual fluid level gauging within 372 groundwater monitoring wells and multipurpose monitoring points was completed between January 10 and January 12, 2017.
 - Groundwater samples were collected and analyzed from six monitoring wells and multipurpose monitoring points between March 13 and March 15, 2017.
 - Groundwater samples were collected and analyzed from the five sentinel monitoring wells on March 14, 2017.
6. Apex completed the following operations, maintenance, and monitoring (OMM) activities with soil vapor extraction (SVE) system during the first quarter 2017:
 - Routine monitoring within vapor collection system components was conducted during the first quarter 2017 including: (1) fluid level gauging; (2) measuring vacuum, air flow, and temperature; and (3) screening total volatile petroleum hydrocarbon and fixed gas concentrations within operating SVE wells.
 - Routine operations within the vapor collection system components was conducted during the first quarter 2017 including adjustments to stingers and valve positions within individual wells, as well as sweeping of the horizontal transmission lines to remove accumulated groundwater.
 - Effectiveness monitoring for the vapor collection system was conducted within 144 nested vapor monitoring probes and multipurpose monitoring points between February 22 and March 1, 2017.



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- Routine OMM of the thermal treatment system components was performed throughout the first quarter 2017.
- Non-routine maintenance of the thermal treatment system including sediment removal from Frac Tank No. 1 at the thermal treatment unit was performed on February 7, 2017 and silt removal from eleven soil vapor extraction wells was performed on March 22 and March 23, 2017.

7. Activities planned during the second quarter 2017 at the Hartford Site:

- Conduct routine OMM of the vapor collection and thermal treatment components of the SVE system in accordance with the approved *Vapor Collection System Operation, Maintenance, and Monitoring Plan* (Trihydro 2015) and *HSVE Monitoring and Maintenance Manual* (URS 2014).
- Conduct quarterly SVE effectiveness monitoring within the nested vapor monitoring probes and multipurpose monitoring points in accordance with the approved *Effectiveness Monitoring Plan* (URS 2014) in May 2017.
- Conduct quarterly in-home effectiveness monitoring in June 2017 in accordance with the *Final Interim In-Home Effectiveness Monitoring Plan* (Trihydro 2014).
- Continue weekly in-home effectiveness monitoring within nine structures in accordance with the *Final Interim In-Home Effectiveness Monitoring Plan* (Trihydro 2014).
- Conduct river stage triggered monitoring in accordance with the triggers established within the *Final Interim In-Home Effectiveness Monitoring Plan* (Trihydro 2014).
- Continue dissolved phase investigation activities in accordance with the *Final Dissolved Phase Investigation Work Plan* (Trihydro 2013) including: (1) quarterly fluid level gauging, (2) groundwater sampling, and (3) data reduction, analysis, and reporting.
- Participate in routine teleconferences and meetings with the USEPA and Illinois EPA.

We appreciate your continued engagement with this project. If you have any questions or require any additional information, please contact me at (513) 430-1766.

Sincerely,

Paul Michalski, P.G.

Senior Hydrogeologist

cc: Jordy Federko, Apex Oil Company, Inc.
Tom Miller, Illinois Environmental Protection Agency